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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,288	02/17/2004	Masayuki Ikeda	9319S-000631	7119
27572	7590	07/21/2006	EXAMINER	
HARNESS, DICKEY & PIERCE, P.L.C.			MULL, FRED H	
P.O. BOX 828			ART UNIT	
BLOOMFIELD HILLS, MI 48303			PAPER NUMBER	
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DATE MAILED: 07/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/780,288	Applicant(s) IKEDA, MASAYUKI	
	Examiner Fred H. Mull	Art Unit 3662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments on p. 13-14, with respect to various objection(s), have been fully considered and are persuasive. The objections have been withdrawn.
2. Applicant's arguments on p. 15-16, with respect to the rejection(s) over King have been fully considered and are persuasive. The rejection(s) of these claims have been withdrawn.
3. Applicant's arguments on p. 17-18, with respect to the rejection(s) over Krasner have been fully considered but they are not persuasive.

First, applicant argues that Krasner fails to teach determining TT based on a reference time (p. 17, 3rd ¶). However, applicant then admits that Krasner "update[s] the current time at the base station from the GPS time" (p. 17, 4th ¶), where GPS time is the reference time. Thus, Krasner is determining TT based on the reference time.

Second, applicant argues that in Krasner, "The base station time, however, is not used for positioning of mobile systems" (p. 17, 4th ¶). However, this feature is not claimed. The only positioning claimed is GPS positioning of the measurement device. The claim does not recite determining the position of the positioning terminal (this is referred to as an intended use in lines 1-2 of claim 1, but is not a claimed limitation), nor using base station time for any kind of positioning. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., using the base station time for positioning

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of mobile systems) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

4. Applicant's arguments on p. 18-20, with respect to the rejection(s) over Soliman have been fully considered and are persuasive. The rejection(s) of these claims have been withdrawn.

5. Applicant's arguments on p. 20-22, with respect to the rejection(s) over Nir have been fully considered and are persuasive. The rejection(s) of these claims have been withdrawn.

6. New 35 USC 112 rejections are added. Thus, this action is non-final.

Claim Objections

7. Claims 17 and 22 are objected to because of the following informalities:

The wording of the claims is not very clear. With respect to claim 17, the examiner would like to suggest language such as:

The positioning terminal according to claim 13[[,]]:

wherein the measurement device further comprises a mobile terminal in good conditions[[,]];

wherein the position P of the measurement device can be determined without accurate time information; and

wherein the measurement device measures P and TR; and

wherein the measurement device voluntarily reports the measurement P and TR
to the control device in the same mobile communication network.

With respect to claim 22, similar clarifications are necessary.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 1, 13, and 14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description and enablement requirements. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention, and thus do not enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

In lines 24-25, the claim states: "the positioning terminal uses the time TT as a reference to receive the signals from the first signal sources for positioning". However, the reference time is GPS time derived from the GPS signals, so it is unclear how it is possible to use a time derived from GPS signals in order to acquire the GPS signals in the first place.

----- Remember to cite the portion of the specification that provides support for this
feature.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 1 and 13-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In lines 24-25, the claim states: "the positioning terminal uses the time TT as a reference to receive the signals from the first signal sources for positioning". However, the reference time is GPS time derived from the GPS signals, so it is unclear how it is possible to use a time derived from GPS signals in order to acquire the GPS signals in the first place.

10. Claims 1-2 and 13-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claim preambles state that the claim is directed to a positioning system "for determining a position of a positioning terminal" (claim 1, lines 1-2), however, the body of the claims do not include determining a position of a positioning terminal.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

11. Claims 1-6, 8-11, 13-16, 18-21, and 23 are rejected under 35 U.S.C. 102(e) and 102(a) as being anticipated by Krasner.

In regard to claims 1-6, 8-11, 13-16, and 19-21, Krasner discloses:

a plurality of first signal sources (GPS satellites) each emitting a respective first signal, and one or more second signal sources (BSs) each emitting a respective second signal, the first signals being synchronous with a reference time and the second signals being non-synchronous with the first signals, for, based on a signal propagation time and signal propagation speed of the first signals, determining a distance from the positioning terminal to the first signal sources so as to determine a position of the positioning terminal, said positioning system comprising:

a measurement device (MS) for receiving the first signals from the first signal sources to determine the position a P of the measurement device and a time of measurement when the measurement device receives the first signals and for, based on the time of measurement, measuring a receiving time (TR), based on the reference time, of a predetermined event of the second signals (col. 7, line 34 to col. 7, line 7);

a control device for determining a signal propagation time (t) between the measurement device and one of the second signal sources by calculating a relative distance |P-Q| between the measurement device and the one second signal source based on the position P measured by the measurement device and a position Q of the

one second signal source and by dividing the resulting distance by the signal propagation speed, and for determining a time (TT), based on the reference time, at which the one second signal source originates the predetermined event by solving $TR-t$ (col. 3, lines 11-16);

the positioning terminal having a receiving device for receiving the signals from the first and second signal sources (col. 1, line 66 to col. 2, line 2; col. 8, lines 55-56); and

a communication device for communicating between the control device and the positioning terminal (col. 2, lines 3-11),

wherein the positioning terminal uses the time TT as a reference to receive the signals from the first signal sources for positioning (col. 1, line 66 to col. 2, line 2; col. 8, lines 55-56).

In regards to claims 18 and 23, Krasner further discloses the measurement device further comprises a mobile terminal in good conditions, where the position P of the measurement device can be determined without accurate time information and measures P and TR according to a request from the control device in the same mobile communication network report the measured P and TR to the control device in the same mobile communication network (col. 7, lines 37-40).

Claim Rejections - 35 USC § 103

12. Claims 7, 12, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krasner, and in further view of Vannucci.

Krasner fails to disclose television broadcast stations as the second signal sources.

Vannucci discloses using television broadcast stations as secondary signal sources to be used with GPS satellites for positioning (¶6, 95).

It would have been obvious to use the known television broadcast station secondary signal sources of Vannucci as positioning transmitters for areas where the number of visible GPS satellites plus BSs are not sufficient for a position calculation.

Allowable Subject Matter

13. Claim(s) 17 and 22 would be allowable if amended to overcome the objections and rejection(s) under 35 U.S.C. 112, set forth in this Office action, without the addition of new matter, and to include all of the limitations of the base claim and any intervening claims.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred H. Mull whose telephone number is 571-272-6975. The examiner can normally be reached on Monday through Friday from approximately 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas H. Tarcza can be reached on 571-272-6979. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Fred H. Mull
Examiner
Art Unit 3662

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